Applicant: Heinrich Bollmann

Serial No.: 09/456,371

Group Art Unit: 1783

IN THE CLAIMS:

The following is a complete listing of the claims indicating their present status and

amendments made thereto.

1-18. (Cancelled)

19. (Currently Amended) A motor vehicle composite damping element received

in a transverse link, a longitudinal link, a triangular link, a rear-axle subframe, a stabilizer, a

spring-strut support, or a shock-absorber of a motor vehicle, said composite damping element

comprising:

i) a rigid thermoplastic polyurethane molding having a thickness of from 2 to 12

10 mm, and

ii) a flexible microcellular polyurethane elastomer layer chemically bonded to and

in direct contact with at least one surface of said rigid thermoplastic polyurethane molding, such

that

said chemical bond between said microcellular polyurethane elastomer and said

thermoplastic polyurethane molding having an ultimate tensile strength sufficient for said

composite damping replacing rubber-metal composites, and

wherein said microcellular polyurethane elastomer layer dampens and absorbs vibrations

of the transverse link, the longitudinal link, the triangular link, the rear-axle subframe, the

stabilizer, the spring-strut support, or the shock-absorber while supported by said rigid

thermoplastic polyurethane molding.

2

H&H Docket No. 065205.00133

Applicant: Heinrich Bollmann

Serial No.: 09/456,371 **Group Art Unit: 1783**

20. (Previously Presented) The composite element of Claim 19 wherein said

elastomer has a density of from 300 to 700 kg/m³, a tensile strength to DIN 53571 of from 3 to 8

N/mm², an elongation at break to DIN 53571 of from 350 to 550%, a tear propagation resistance

to DIN 53515 of from 8 to 30 N/mm, and a rebound resilience to DIN 53512 of from 50 to 60%.

21. (Cancelled)

22. (Previously Presented) The composite element of Claim 19 wherein said

elastomer layer is bonded to an inner surface of said molding.

23. (Previously Presented) The composite element of Claim 19 wherein said

elastomer layer is bonded to an outer surface of said molding.

24-29. (Cancelled).

30. (Previously presented) The composite element of Claim 19 wherein said

thermoplastic polyurethane molding is formed from isocyanates and isocyanate reactive

components in a ratio of isocyanate groups to isocyanate reactive groups of greater than 1.06:1

such that said excess isocyanate groups are available for chemically bonding with said

microcellular polyurethane elastomer layer.

31. (New) The composite element of Claim 19 wherein said ultimate tensile strength

is from 1 to 2 N/mm².

32. (New) The composite element of Claim 31 wherein said ultimate tensile strength

is further defined as from 1.07 to 1.52 N/mm².

3

H&H Docket No. 065205.00133

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Serial No.: 09/456,371 **Group Art Unit: 1783**

> 33. (New) A composite damping element comprising:

i) a support member formed from a thermoplastic polyurethane molding having

excess isocyanates groups, said molding formed from a) isocyanates and b) compounds reactive

to isocyanates in a ratio of greater than 1.06:1, and said support member having a thickness of

from 2 to 12 mm:

ii)

a flexible bearing member formed from microcellular polyurethane elastomer,

said elastomer formed from a) isocyanates and b) compounds reactive to isocyanates in a ratio

of 0.8:1 to 1.2:1 and in the presence of blowing agents;

said flexible bearing member chemically bonded to said support member, said chemical

bond exhibiting an ultimate tensile strength from 1.07 to 1.52 N/mm² without adhesion

promoters; and

said composite damping element having improved dampening and vibration absorption

as a result of said chemical bond securing said flexible bearing member to said support member.

34. (New) The composite damping element of Claim 33 wherein said elastomer has

a density of from 300 to 700 kg/m³, a tensile strength to DIN 53571 of from 3 to 8 N/mm², an

elongation at break to DIN 53571 of from 350 to 550%, a tear propagation resistance to

DIN 53515 of from 8 to 30 N/mm, and a rebound resilience to DIN 53512 of from 50 to 60%.

35. (New) The composite damping element of Claim 34 wherein said ratio of said a)

isocyanates and b) compounds reactive to isocyanates in said molding is from 1.1:1 to 1.2:1.

4